

ABSTRACT

[0057] Imaging apparatuses, image data processing methods, and articles of manufacture are described. In one aspect, an imaging apparatus including an image sensor having a plurality of color sensor arrays is described. Individual sensor arrays include a plurality of sensors configured to provide image data for a plurality of pixels of a respective color component at an initial resolution. The plurality of color sensor arrays overlap and are offset with respect to one another to define a plurality of sub-pixels for individual ones of the pixels. The imaging apparatus includes processing circuitry configured to access the image data for at least one pixel from each of the plurality of color sensor arrays, and using the accessed image data, to determine sub-pixel image data for the respective sub-pixels to form an image of an increased resolution compared with the initial resolution of the color sensor arrays.